

IPDU – Intelligent Power Distributions Units A Series

User Manual

Abstract

This document includes installation, configuration, and operation information for the Dätwyler Intelligent Power Distribution Units. This document is for the person who installs and maintains power products. We assume you are qualified in the servicing of high-voltage equipment and trained in recognizing hazards in products with hazardous energy levels.

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Important safety information

NOTE: The DATWYLER Intelligent Power Distribution Unit (IPDU) is intended for use only with information technology equipment loads in racks or similar computer room applications.



WARNING: To reduce the risk of personal injury from electric shock, do not remove the cover. There are no field-serviceable or user-serviceable components inside.



WARNING: A risk of personal injury from electric shock and hazardous energy levels exists. The installation of options and routine maintenance and service of this product must be performed by individuals who are knowledgeable about the procedures, precautions, and hazards associated with AC power products.

Follow these safety precautions when connecting multiple hardware components to power sources.



WARNING: To reduce the risk of personal injury or damage to the equipment:

- Plug the input power cord into a grounded (earthed) electrical outlet that is located near the equipment and is easily accessible.
- Be sure that the load products connected to the DATWYLER Intelligent Power Distribution Unit (IPDU) are adjusted for, or otherwise capable of operation from the same line voltage supplying the IPDU. Failure to verify the voltage can lead to severe equipment damage.
- Do not overload the IPDU. The total input current rating of all equipment connected to each output cannot exceed the total output rating marked on the IPDU.



WARNING: To reduce the risk of personal injury from high-leakage current, verify earth connection before connecting the power supply. The summation of input power for multiple pieces of information technology equipment through the use of power products can result in high-leakage currents. If the total system leakage current for a system of components exceeds 3.5 mA:

- The use of a detachable input power cord is prohibited.
- The input power cord must be securely attached, and it should be connected to the AC mains by hardwiring or through the use of a non-residential, industrial-style plug that maintains positive earth connection.
- If the total system leakage current through the ground conductor exceeds 5% of the input current per line under normal operating conditions, the system loads should be divided among multiple power connections.

1 Introduction

The Datwyler MPDU-A Series is designed to combine network communication, AC/DC integration, power distribution, network management and hot-swap technology. With its functionalities it is ideal for application in modern data centres. It adopts key technologies to fulfil the demand of monitoring key data in a data centre environment.

1.1 Main functions

The Datwyler MPDU Series A has following functions:

1. Monitor input voltage (V)
2. Monitor total current load (A)
3. Monitor total power (kW)
4. Monitor energy consumption (kWh)
5. Monitor the micro-environment in the cabinet (°C / %)

1.2 Monitoring method

The data of the MPDU-A Series can be accessed through WEB interface, SNMP (v1) or Telnet command console.

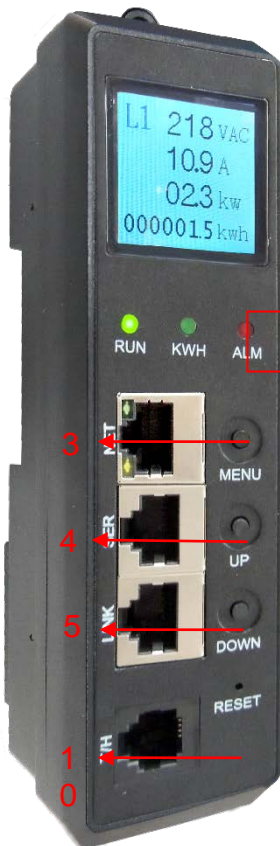
The IPDU-A Series can be also monitored and managed through centralized management software.

1.3 Applications

The single phase device can be applied to environments with 100VAC~240VAC and up to 63A, the three phase to AC 200V~400V and up to 32A or DC 100V~350V power source. The outlet type and quantity can be customized at request.

The Datwyler MPDU-A Series is widely applied in data centre industries like network communication, telecommunication, electric power, finance, insurance, aerospace, transportation, information processing, education, health care, government etc.

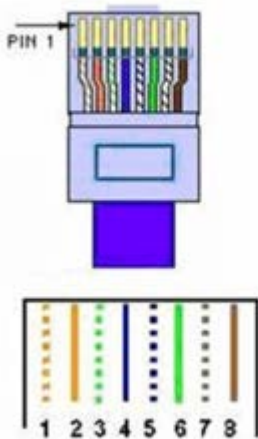
1.4 Front Panel



1. Screen: TFT screen
2. RUN: Run indicator
KWH: kWh indicator
ALM: Alarm indicator
3. NET: Ethernet port
4. SER: Daisy-chain port
5. LINK: Daisy-chain port
6. MENU: Menu Key
7. UP: Function set key
8. DOWN: Position selection key
9. RESET: Reset button
10. T/H: Temperature/Humidity sensor port

2 Instruction RS485 port and RJ45 terminal pin

RJ45 terminal pin



Color	Instructions
1. Orange & White	GND
2. Orange	GND
3. Green & White	RS485-A
4. Blue	RS485-A
5. Blue & White	RS485-B
6. Green	RS485-B
Brown & White	GND
8. Brown	GND

3 Installation

Unpack the IPDU carefully and check the completeness of the delivery scope. In case of deficit please contact your vendor.

The installation shall be done by an IT specialist. There must be sufficient and clean installation space available.

Make sure the installation place fulfil the permitted environmental conditions.

Use the delivered installation fittings and angles or suitable ones from other sources.

Install the IPDU de-energised and lay the connection cables properly to avoid accidents.

4 Hardware

4.1 Front panel

Panel composition	Function	Description
RUN	Run indicator	Flashes every 1 second
KWH	kWh indicator	Flashing frequency depends on the load
ALM	Alarm indicator	Light is on in case of alarm
NET	Ethernet port	LAN/WAN Ethernet communication port
SER	Daisy-chain port	RS-485 daisy-chain communication port
LINK	Daisy-chain port	RS-485 daisy-chain communication port
MENU	Menu key	<ul style="list-style-type: none"> - To view the information displayed on LCD Module, light up the LCD Module background and save the configuration by pressing ENTER. - To reset the factory settings hold the MENU button and press the RESET button to reset - To mute the alarm press and hold the MENU button for 4 seconds to turn the alarm On or Off
UP	Set Function	Light up the LCD Module background, press the UP button set the Master or Slave address cord, the maximum threshold of voltage, current, temperature and humidity from 0 to 9
DOWN	Position selection	Light up the LCD Module background, press the DOWN button to select the address cord. The display will show maximum threshold of voltage, current, temperature and humidity.
RESET	Reset button	Reset the device.
Screen	Display	The Display shows the measured power and environmental data.

T/H	Temperature and humidity sensor port	Plug Temperature & Humidity sensor here.
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4.2 Initialization

When the power is on, the RUN indicator will flash and the PDU works normally. The screen will light up after pressing MENU.

The following chapters will explain how to display the values in different modes (Direct Current Mode AC single phase mode and AC three phase mode).

4.2.1 Direct Current mode

Screen 1: Voltage (VDC), Current (A), Power (KW), Energy (kWh)

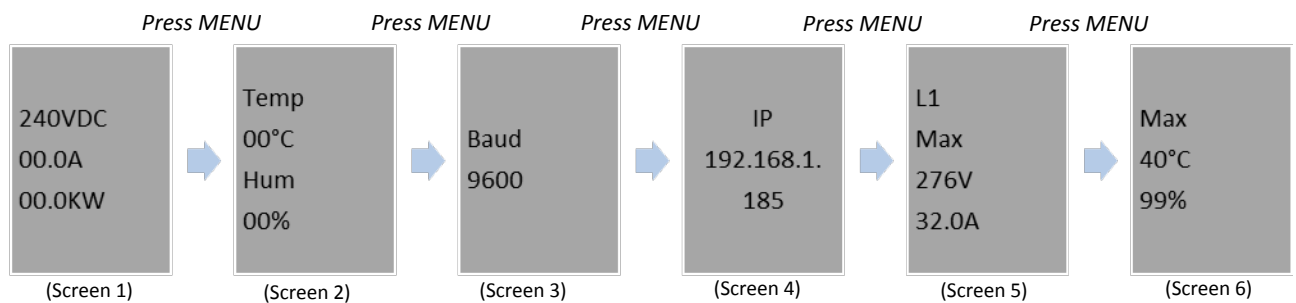
Screen 2: Temperature (°C) and Humidity (%)

Screen 3: Baud rate (4800/9600/19200/38400)

Screen 4: Device IP address

Screen 5: Threshold of current (32A) and voltage (276VDC)

Screen 6: Threshold of the temperature (40°C) and humidity (90%)



4.2.2 AC single phase mode

Screen1: Voltage (VAC), Current (A), Power (KW), Energy (kWh)

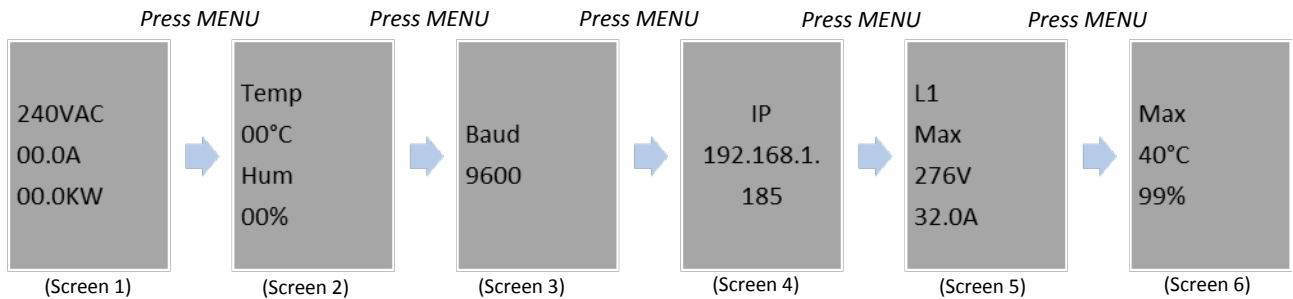
Screen 2: Temperature (°C) and Humidity (%)

Screen 3: Baud rate (4800/9600/19200/38400)

Screen 4: Device IP address

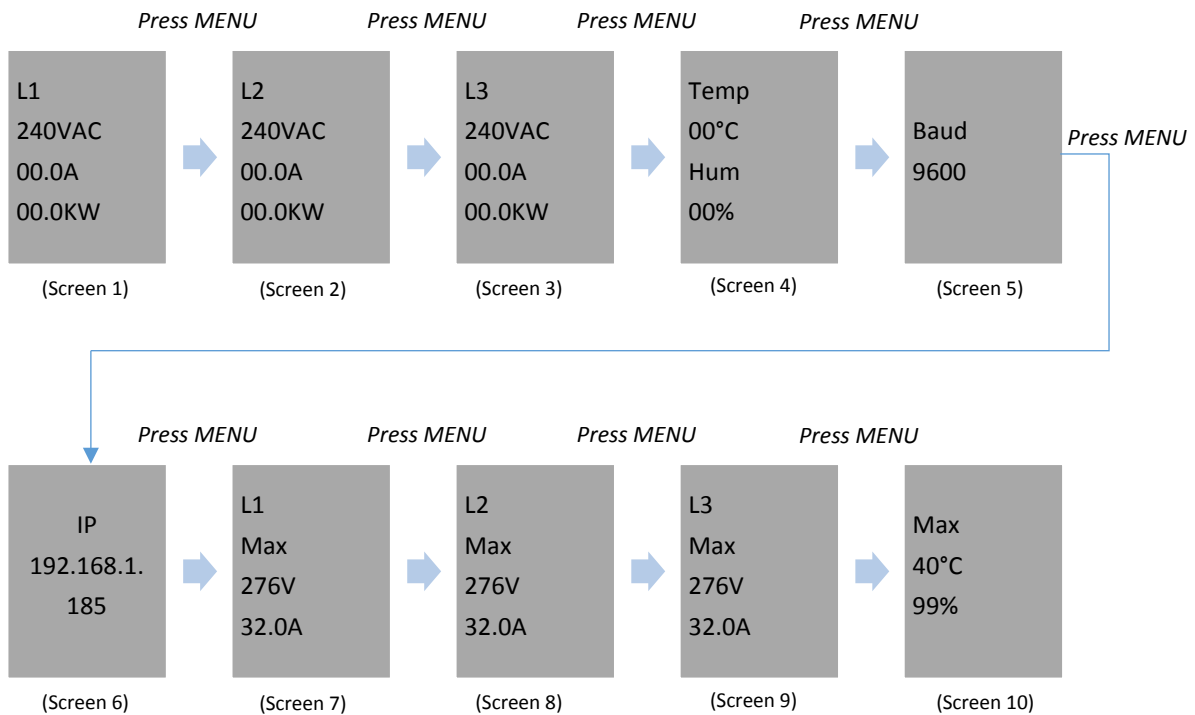
Screen 5: Threshold of the current (32A) and voltage (276VAC)

Screen 6: Threshold of the temperature (40°C) and humidity (90%)



4.2.3 AC three phase mode

- Screen 1: L1 Voltage (VAC), Current (A), Power (KW), Energy (KWh)
- Screen 2: L2 Voltage (VAC), Current (A), Power (KW), Energy (KWh)
- Screen 3: L3 Voltage (VAC), Current (A), Power (KW), Energy (KWh)
- Screen 4: Temperature (°C) and Humidity (%)
- Screen 5: Baud rate (4800/9600/19200/38400)
- Screen 6: Device IP address
- Screen 7: L1 threshold of current (32A) and voltage (276VAC)
- Screen 8: L2 threshold of current (32A) and voltage (276VAC)
- Screen 9: L3 threshold of current (32A) and voltage (276VAC)
- Screen 10: Threshold of temperature (40°C) and humidity (90%)



4.3 Hardware settings

4.3.1 Address code settings

To locate the address code page (like Add -0) from the LCD screen, press DOWN button to set the value. It will turn from 4 to 0 for the master or slave address codes. Press the UP button to set the value which will cycle the address codes for MPDUs 0 to 4 (Master and Slaves).

4.3.2 Current and Voltage threshold settings

To locate the threshold setting page (Figure 5 in single mode or Figure 7 to 9 in 3 phase mode) press the DOWN button to select the value that needs to be set. The select position will flash. Then press the UP button to set the threshold value. The allowed maximum current is 32A and maximum voltage is 276VAC
 Note: All above settings must be saved by pressing the MENU button. The settings will take effect after the beep. Otherwise the settings will not be saved.

4.3.3 Reset factory settings

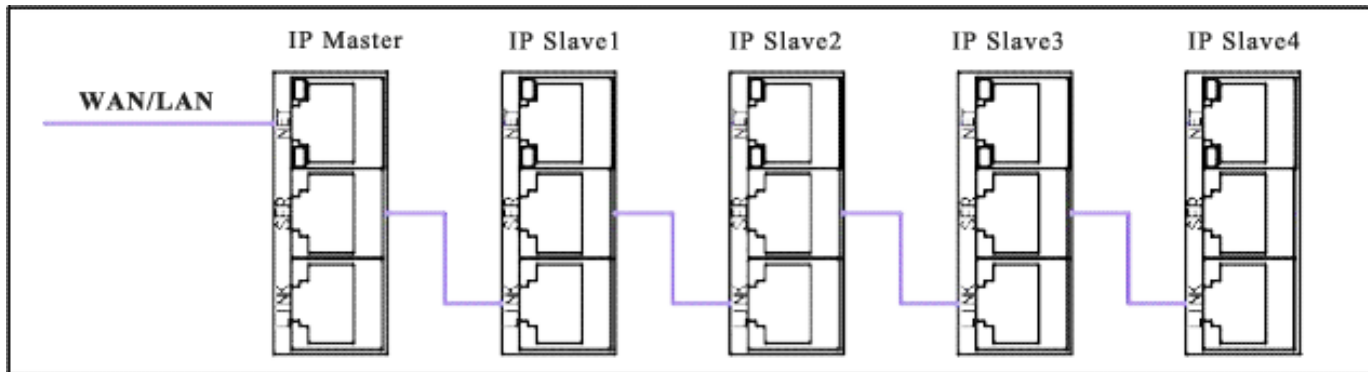
Press and hold the MENU button when power is on or Hold the MENU button and press the RESET button till the screen displays normally

4.3.4 Mute the alarm

When an alarm is on press and hold the MENU button for 5-6 seconds to turn off/on the alarm. When the alarm was turned on, an O in red will be displayed in the screen. When the alarm was turned off, an F in red will be displayed in the screen.

4.4 Daisy-chain connection

4.4.1 Serial Daisy-chain mode

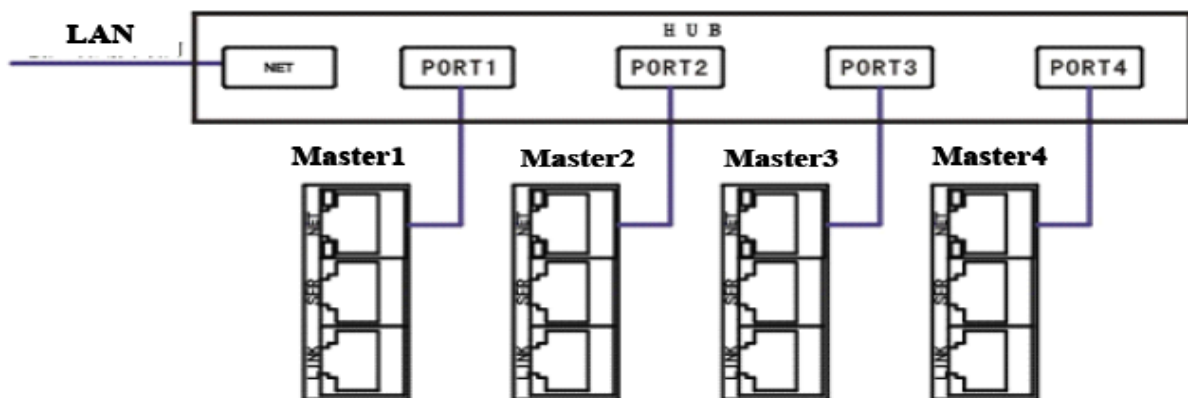


(Figure 1)

By serial Daisy chain one MPDU-A Series is set as Master unit and the other(s) as Slave unit. The maximum daisy-chain can support 1 master with 4 slaves.

Connect the LINK port of the slave with the SER port of the Master or another SLAVE (compare figure above).

4.4.2 Ethernet Daisy-chain mode



(Figure 2)

Connect the NET port of each PDU to a port of the HUB. Connect the Net port of the HUB to the internet. There is no limitation in the number of PDUs. Please see Figure 2.

The PDU can be directly connected with the computer. Connect the Master's NET port with the Net port of the computer. Then access via IE.

5 Software

The user can access the Datwyler MPDU-A Series through WEB interface, SNMP (v1) or Telnet command console.

5.1 Web browser access

The user can access, monitor and control the Datwyler MPDU-A Series by web browser (ex. Internet Explorer, Google Chrome and other) by inserting the correct IP address in the address bar. A login window will pop-up (illustrated in figure 1).

Welcome to DATWYLER IP-PDU.

User Name:

Password:

The default user name and password is admin.

Figure1

After having entered the correct user name and password in the login dialog box you will be directed to the home page (as figure 2).

DATWYLER IP-PDU
Version: 1.4.1

Device State ◀

- Threshold Settings
- Device Settings
- User Settings
- Network
- SNMP/Telnet
- SMTP Settings
- Restart

MENU

Device Show Information

PDU: Master ▼

Input : AC

Input Line: Line1

L1 0A

225V 0kW

0.4 kWh

Item	Name	Status	Unit
1	Line 1 Current	0	A
2	Line 1 Voltage	225	V
3	Line 1 Power	0	kW
4	Line 1 Energy	0.4	kWh
5	Temperature	0	°C
6	Humidity	0	%

Figure 2

The home page interface includes a Menu on the left and an overview on the device status in the major screen.

5.1.1 Device state

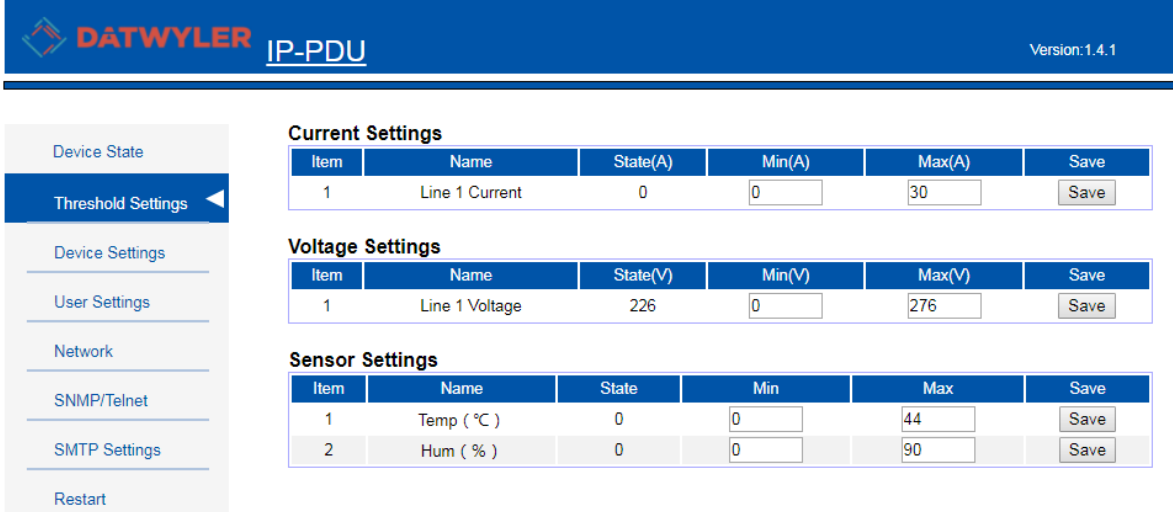
Here the current, voltage, power and energy consumption as well as Temperature and Humidity of the MPDU-A SERIES can be checked as shown in figure 2.

In case there is more than one PDU connected, the user can choose in the drop-down list PDU: Master ▼ the Master unit or one of the Slave units. One Master unit can support up to you 4 Slave units (Slave 1- Slave 4).

If the PDU has three phases the drop-down list “Input Line” the user can choose to view the status of L1,L2 or L3. Single phase PDUs do not have a drop-down list.

5.1.2 Threshold setting

Choose Threshold Settings in the Menu. Here the threshold of current, voltage, temperature and humidity can be set for each phase (Figure 3).



DATWYLER IP-PDU Version: 1.4.1

Device State
Threshold Settings
 Device Settings
 User Settings
 Network
 SNMP/Telnet
 SMTP Settings
 Restart

Current Settings

Item	Name	State(A)	Min(A)	Max(A)	Save
1	Line 1 Current	0	<input type="text" value="0"/>	<input type="text" value="30"/>	<input type="button" value="Save"/>

Voltage Settings

Item	Name	State(V)	Min(V)	Max(V)	Save
1	Line 1 Voltage	226	<input type="text" value="0"/>	<input type="text" value="276"/>	<input type="button" value="Save"/>

Sensor Settings

Item	Name	State	Min	Max	Save
1	Temp (°C)	0	<input type="text" value="0"/>	<input type="text" value="44"/>	<input type="button" value="Save"/>
2	Hum (%)	0	<input type="text" value="0"/>	<input type="text" value="90"/>	<input type="button" value="Save"/>

Figure 3

Set the threshold of current, voltage, temperature and humidity.

The current of a single phase can range from 0-63A. The current threshold of a three phase PDU can range from 0-32A and direct current from 0-60A.

The input voltage can range from 170-276VAC

The temperate can range from 0-40°C and humidity range from 0-99%

5.1.3 Device Settings

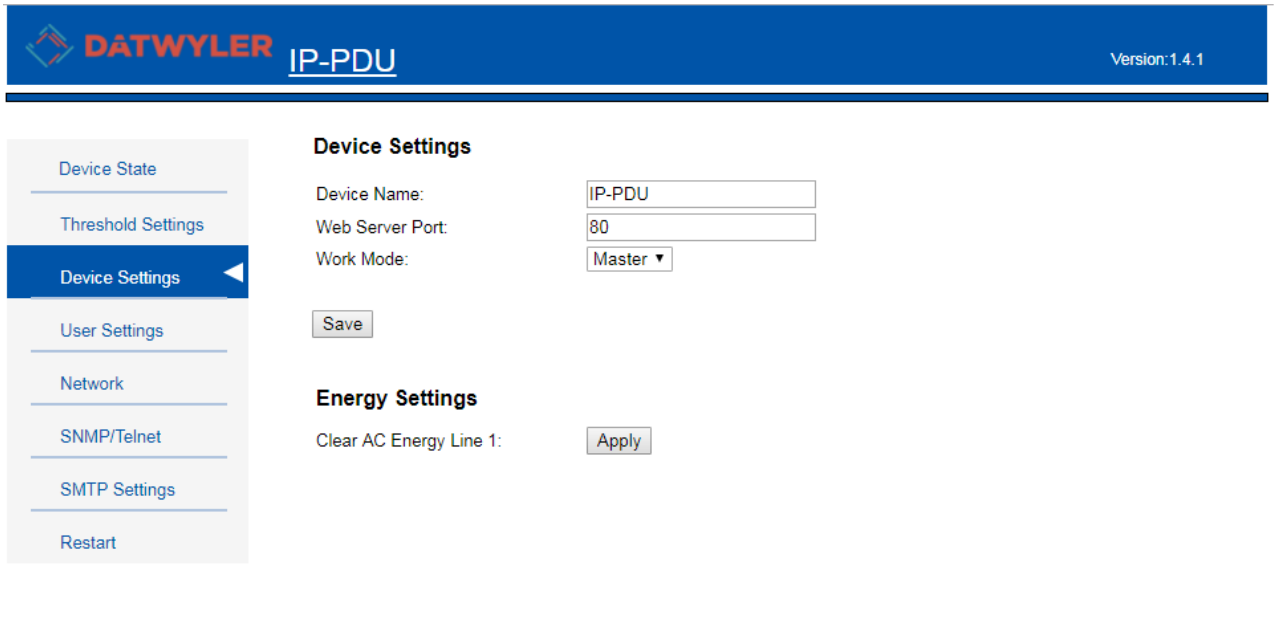
Choose Device Settings from the Menu.

Device Name: Fill in the device name then save it.

Web server port

Work model: Define if the PDU is Master or Slave. Choose Master, Slave 1, ..., Slave 4. (Virtual Value:1-4)

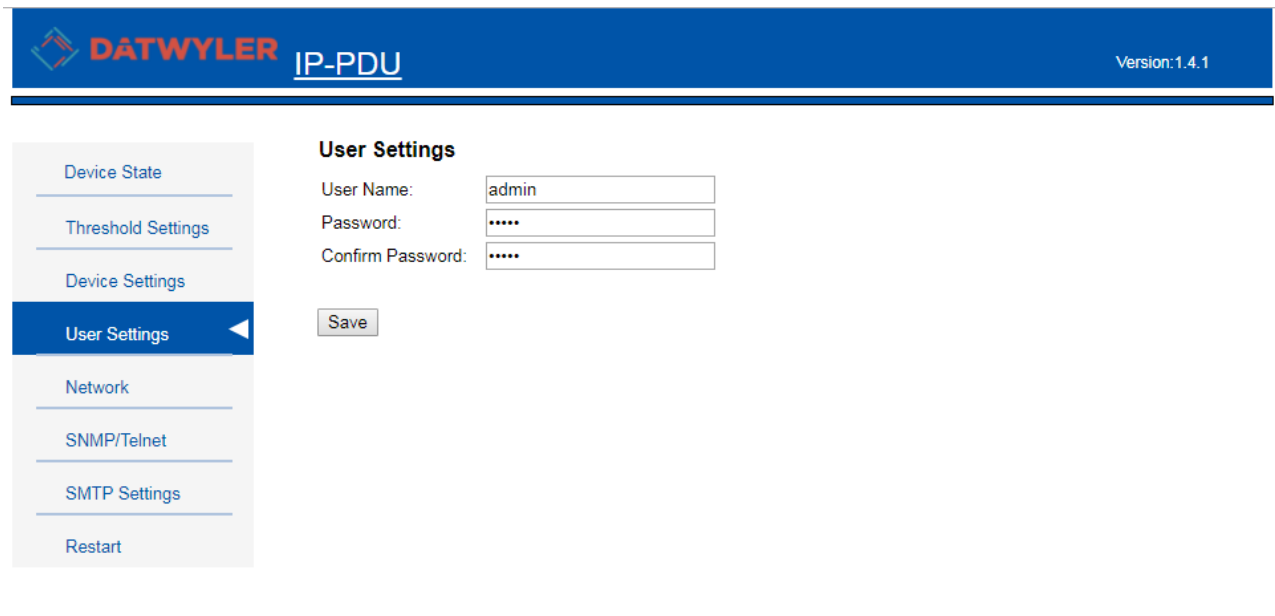
Energy Setting: To clear the energy line1 click the button. The same operation shall be done for Line 2 and Line 3 in 3-phase products to clear the energy consumption.



The screenshot shows the web interface for a DATWYLER IP-PDU. The top navigation bar is blue with the DATWYLER logo and 'IP-PDU' on the left, and 'Version: 1.4.1' on the right. A left-hand menu contains several options: Device State, Threshold Settings, Device Settings (highlighted in blue with a left-pointing arrow), User Settings, Network, SNMP/Telnet, SMTP Settings, and Restart. The main content area is titled 'Device Settings' and contains three sections: 'Device Name' with a text input field containing 'IP-PDU', 'Web Server Port' with a text input field containing '80', and 'Work Mode' with a dropdown menu set to 'Master'. Below these is a 'Save' button. The second section is 'Energy Settings' with a 'Clear AC Energy Line 1:' label and an 'Apply' button.

Figure 4

5.1.4 User settings

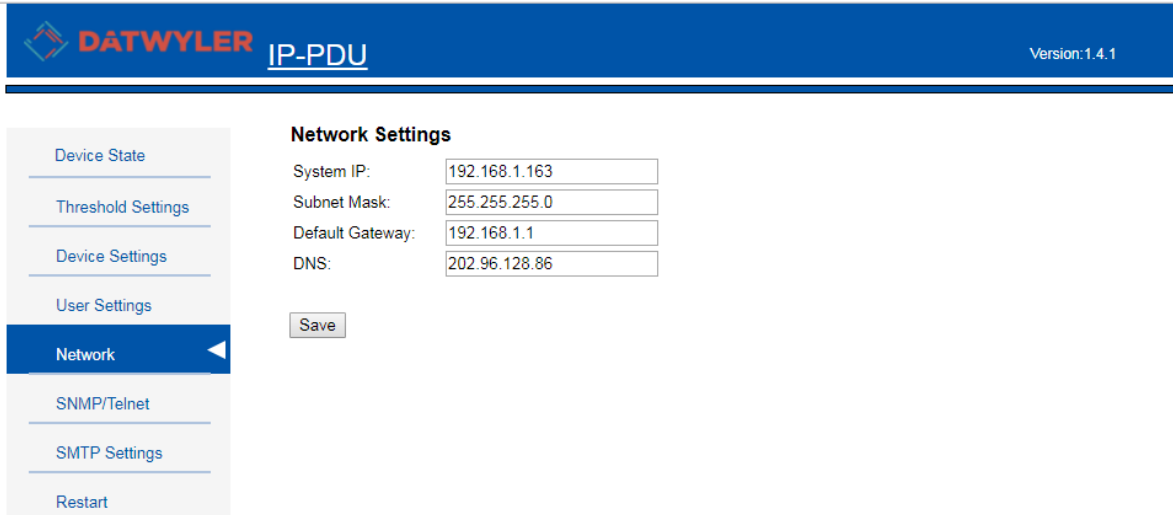


The screenshot shows the web interface for a DATWYLER IP-PDU, specifically the 'User Settings' page. The top navigation bar is blue with the DATWYLER logo and 'IP-PDU' on the left, and 'Version: 1.4.1' on the right. The left-hand menu is the same as in Figure 4, but 'User Settings' is now highlighted in blue with a left-pointing arrow. The main content area is titled 'User Settings' and contains three sections: 'User Name' with a text input field containing 'admin', 'Password' with a text input field containing six dots, and 'Confirm Password' with a text input field containing six dots. Below these is a 'Save' button.

Figure 5

Choose User Settings from the menu like in Figure 5.
Here the user name and password can be set. Then save it.
The user name and password shall not exceed 16 digits.

5.1.5 Networking Setting



DATWYLER IP-PDU Version: 1.4.1

Network Settings

System IP:

Subnet Mask:

Default Gateway:

DNS:

Figure 6

Choose Network from the Menu.

Networking Setting: System IP: 192.168.1.163 (factory default IP Address)

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.1

DNS: factory default is 202.96.128.86

Please ensure the DNS address is correct so that email can be sent out.

Note: Restarting software is necessary after a modification of the network settings.

5.1.6 SNMP Setting

Choose SNMP/Telnet from the Menu.

The default setting of community is "public" and the default setting of community is "private". This can be modified according to the need of application.

Fill in the trap address of the SNMP management platform. The trap alarm will be sent automatically. There is a possibility to set 2 trap addresses.

Note: Restarting software is necessary after SNMP setting.

To use or not a Telnet Server select "Enable" or "Disable". The default state is enabled.

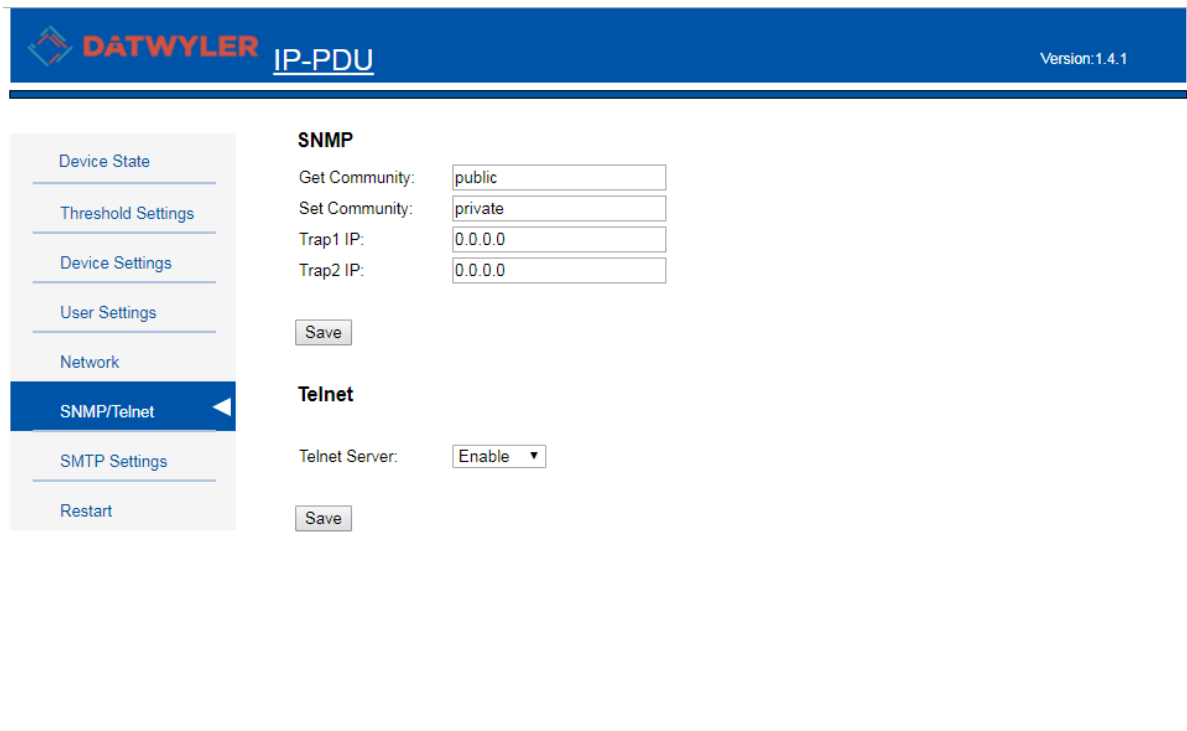
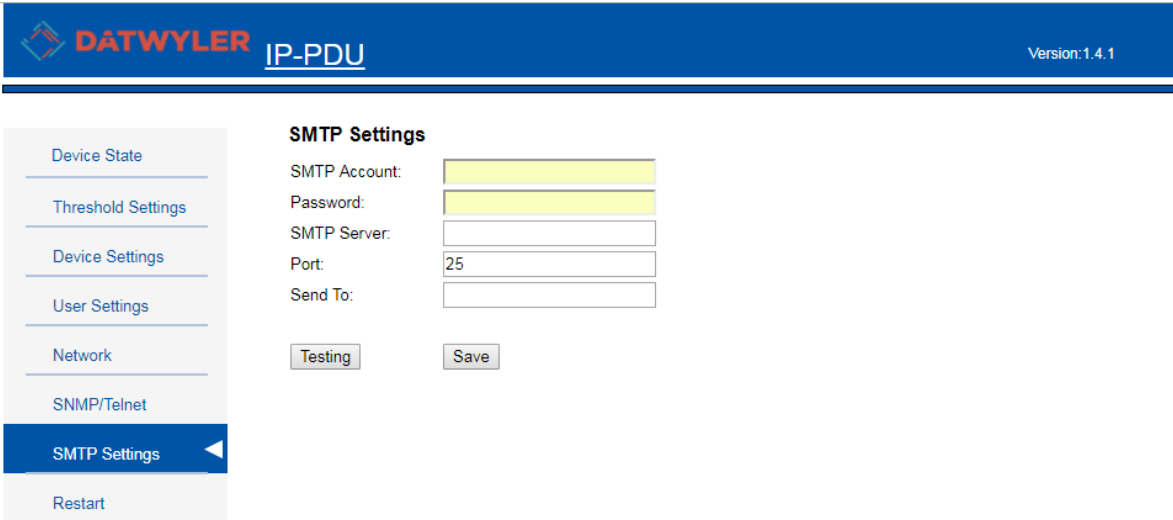


Figure 7

5.1.7 E-mail Alarm Settings

Choose SMTP Settings in the Menu.

Set the SMTP including SMTP account, password, SMTP server and port, then save. Click "Testing" and fill in the testing email address. If the test email is received, the setting is effective. See below interface.



DATWYLER IP-PDU Version: 1.4.1

Device State
Threshold Settings
Device Settings
User Settings
Network
SNMP/Telnet
SMTP Settings
Restart

SMTP Settings

SMTP Account:

Password:

SMTP Server:

Port:

Send To:

Figure 8

5.1.8 Restart & Restore

Choose Restart from the menu.

Here the software can either be restarted or the factory default settings be restored.

Select Activity: After having chosen from the drop down menu “restart” or “restore”, click “Save”. When the MPDU-A series is buzzing, the software restart was successful.

Note: Press and hold the MENU button when power on to restore to factory settings.

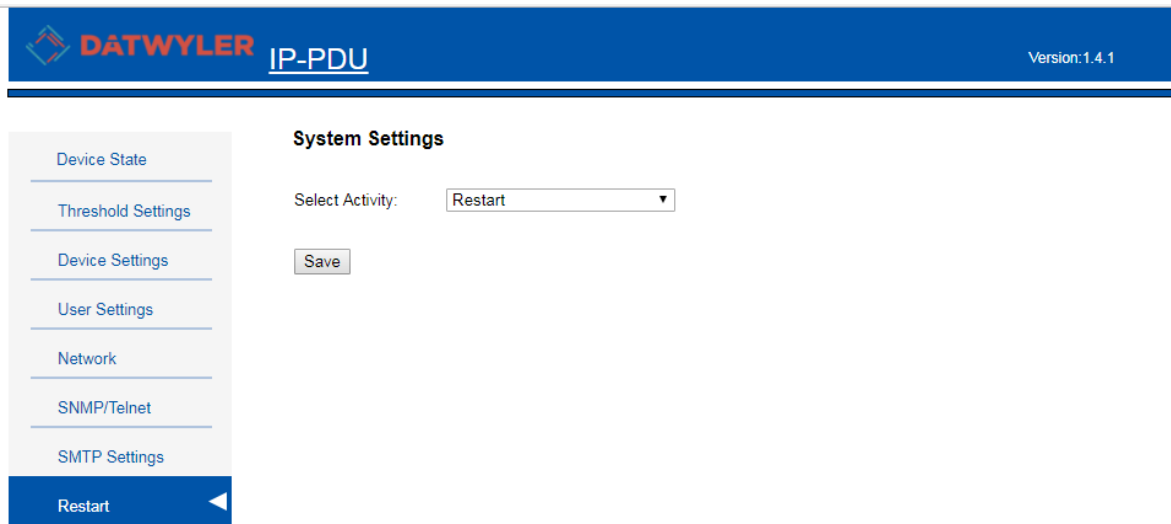


Figure 9

6 SNMP access

SNMP access: SNMP (V1)

	OID	Instructions
Device Name	1.3.6.1.4.1.30966.10.3.1.1	Master device name
mVoltage A	1.3.6.1.4.1.30966.10.3.2.1	Voltage of L1 for master device
mVoltage B	1.3.6.1.4.1.30966.10.3.2.2	Voltage of L2 for master device
mVoltage C	1.3.6.1.4.1.30966.10.3.2.3	Voltage of L3 for master device
mCurrent A	1.3.6.1.4.1.30966.10.3.2.4	Current of L1 for master device
mCurrent B	1.3.6.1.4.1.30966.10.3.2.5	Current of L2 for master device
mCurrent C	1.3.6.1.4.1.30966.10.3.2.6	Current of L3 for master device
mEnergy A	1.3.6.1.4.1.30966.10.3.2.7	Power energy of L1 for master device
mEnergy B	1.3.6.1.4.1.30966.10.3.2.8	Power energy of L2 for master device
mEnergy C	1.3.6.1.4.1.30966.10.3.2.9	Power energy of L3 for master device
mTem	1.3.6.1.4.1.30966.10.3.2.10	The temperature value of Master
mHum	1.3.6.1.4.1.30966.10.3.2.11	The humidity value of Master

sOneVoltage A	1.3.6.1.4.1.30966.10.3.2.12	Voltage of L1 for slave 1
sOneVoltage B	1.3.6.1.4.1.30966.10.3.2.13	Voltage of L2 for slave 1
sOneVoltage C	1.3.6.1.4.1.30966.10.3.2.14	Voltage of L3 for slave 1
sOneCurrent A	1.3.6.1.4.1.30966.10.3.2.15	Current of L1 for slave 1
sOneCurrent B	1.3.6.1.4.1.30966.10.3.2.16	Current of L2 for slave 1
sOneCurrent C	1.3.6.1.4.1.30966.10.3.2.17	Current of L3 for slave 1
sOneEnergy A	1.3.6.1.4.1.30966.10.3.2.18	Power energy of L1 for slave 1
sOneEnergy B	1.3.6.1.4.1.30966.10.3.2.19	Power energy of L2 for slave 1
sOneEnergy C	1.3.6.1.4.1.30966.10.3.2.20	Power energy of L3 for slave 1
sOneTem	1.3.6.1.4.1.30966.10.3.2.21	The temperature value of Slave 1
sOneHum	1.3.6.1.4.1.30966.10.3.2.22	The temperature value of Slave 1
sTwoVoltage A	1.3.6.1.4.1.30966.10.3.2.23	Voltage of L1 for slave 2
sTwoVoltage B	1.3.6.1.4.1.30966.10.3.2.24	Voltage of L2 for slave 2
sTwoVoltage C	1.3.6.1.4.1.30966.10.3.2.25	Voltage of L3 for slave 2
sTwoCurrent A	1.3.6.1.4.1.30966.10.3.2.26	Current of L1 for slave 2
sTwoCurrent B	1.3.6.1.4.1.30966.10.3.2.27	Current of L2 for slave 2
sTwoCurrent C	1.3.6.1.4.1.30966.10.3.2.28	Current of L3 for slave 2
sTwoEnergy A	1.3.6.1.4.1.30966.10.3.2.29	Power energy of L1 for slave 2
sTwoEnergy B	1.3.6.1.4.1.30966.10.3.2.30	Power energy of L2 for slave 2
sTwoEnergy C	1.3.6.1.4.1.30966.10.3.2.31	Power energy of L3 for slave 2
sTwoTem	1.3.6.1.4.1.30966.10.3.2.32	The temperature value of Slave 2
sTwoHum	1.3.6.1.4.1.30966.10.3.2.33	The temperature value of Slave 2
sThreeVoltage A	1.3.6.1.4.1.30966.10.3.2.34	Voltage of L1 for slave 3
sThreeVoltage B	1.3.6.1.4.1.30966.10.3.2.35	Voltage of L2 for slave 3
sThreeVoltage C	1.3.6.1.4.1.30966.10.3.2.36	Voltage of L3 for slave 3
sThreeCurrent A	1.3.6.1.4.1.30966.10.3.2.37	Current of L1 for slave 3
sThreeCurrent B	1.3.6.1.4.1.30966.10.3.2.38	Current of L2 for slave 3

sThreeCurrent C	1.3.6.1.4.1.30966.10.3.2.39	Current of L3 for slave 3
sThreeEnergy A	1.3.6.1.4.1.30966.10.3.2.40	Power energy of L1 for slave 3
sThreeEnergy B	1.3.6.1.4.1.30966.10.3.2.41	Power energy of L2 for slave 3
sThreeEnergy C	1.3.6.1.4.1.30966.10.3.2.42	Power energy of L3 for slave 3
sThreeTem	1.3.6.1.4.1.30966.10.3.2.43	Temperature value of Slave 3
sThreeHum	1.3.6.1.4.1.30966.10.3.2.44	Temperature value of Slave 3
sFourVoltage A	1.3.6.1.4.1.30966.10.3.2.45	Voltage of L1 for slave 4
sFourVoltage B	1.3.6.1.4.1.30966.10.3.2.46	Voltage of L2 for slave 4
sFourVoltage C	1.3.6.1.4.1.30966.10.3.2.47	Voltage of L3 for slave 4
sFourCurrent A	1.3.6.1.4.1.30966.10.3.2.48	Current of L1 for slave 4
sFourCurrent B	1.3.6.1.4.1.30966.10.3.2.49	Current of L2 for slave 4
sFourCurrent C	1.3.6.1.4.1.30966.10.3.2.50	Current of L3 for slave 4
sFourEnergy A	1.3.6.1.4.1.30966.10.3.2.51	Power energy of L1 for slave 4
sFourEnergy B	1.3.6.1.4.1.30966.10.3.2.52	Power energy of L2 for slave 4
sFourEnergy C	1.3.6.1.4.1.30966.10.3.2.53	Power energy of L3 for slave 4
sFourTem	1.3.6.1.4.1.30966.10.3.2.54	The temperature value of Slave 4
sFourHum	1.3.6.1.4.1.30966.10.3.2.55	The temperature value of Slave 4

7 Telnet access

The application of Telnet enables an easy remote management of the PDU. The MPDU can be monitored and managed by entering the command line of the Telnet program. Telnet requires the customer terminal from the PC. It will work with free software like PUTTY. The main commands are: STATUS, REBOOT, RESET, HELP.

7.1 STATUS

The "STATUS" command can be used to view the device status. It will show current, voltage, energy, temperature and humidity.

Command: STATUS [INDEX]

[INDEX]: 0 is the master PDU, 1-4 are slave PDUs.

For example "status 0" will show current, voltage, energy, temperature and humidity of the Master unit.

Note: the actual value should be 10 times of displayed one

7.2 REBOOT

Enter "REBOOT" command line to restart the device.

7.3 RESET

Enter "RESET" command line to restore to factory settings.

8 Technical Specification

No.	Item		Parameters	
1	Input	Single phase	Rating voltage	110/220V 50/60HZ
			The max current	16A; 32A; 63A
		Three phase	Rating voltage	380V 50/60hz
			The max current	3×16A; 3×32A
		Direct current	Rating voltage	240V / 336V
			The max current	40A / 60A
		Cable Spec	16A: 3 ×2.5mm ² ×3m 32A: 3 ×6.0mm ² ×3m 63A: 3 ×16.0mm ² ×3m 3×16A: 5 ×2.5mm ² ×3m 3×32A: 5 ×6.0mm ² ×3m	
		Input terminal	16A input: 3 ×2.5mm ² ×3m IEC60320 C20 input 32A input: 3 ×6.0mm ² ×3m IEC60309 industrial plug 63A input: 3 ×16.0mm ² ×3m IEC60309 industrial plug 3×16A input: 5 ×2.5 mm ² ×3m IEC60309 industrial plug 3×32A input: 5 ×6 mm ² ×3m IEC60309 industrial plug	
Overload protector	Circuit breaker (optional)			
2	Output	Single phase	Rating voltage	110/220V
			The max current	16A; 32A; 63A
		Three phase	Rating voltage	220V
			The max current	3×16A; 3×32A
		Direct current	Rating voltage	240V / 336V
			The max current	40A / 60A
		Outlet standard	Optional	
Outlet quantity	Optional			
3	Display	Display method		LCD display
		Display contents		A/V/kWh/kW, IP address, address code; temperature/humidity
		Display direction		Vertical
		Response Time		400ms
		Accuracy	Voltage	Accuracy: ±1□±3byte) Resolution: 1V
Current	Accuracy: ±1□±1byte) Resolution: 100mA			

			kWh	Accuracy: ±□ Resolution: 0.1kW h
5	Physical Spec	Material		ABS+PC
		Colour		Black
	Dimension	Build-in IPDU-A SERIES modular		155mm
		Hot-Swap IPDU-A SERIES modular		180mm
6	Installation	Vertical		
7	Monitor	Total load current (A)		
		Input Voltage (V)		
		Total energy consumption (kWh)		
		Total Power (kW)		
		Temperature/humidity (°C / %)		
8	Setting	Threshold of Current/Voltage/Temperature and Humidity		
		Email alarm address		
		HTTP		
		SNMP(v1)		
		Network IP, gateway, subnet mask, DNS)		
9	System default alarm	When current exceeds Max		
		When voltage exceeds Max		
		When Temperature/humidity exceed the threshold		
	User defined alarm	When current exceeds the threshold		
		When voltage exceeds the threshold		
		When Temperature/humidity exceed the threshold		
	Alarm	Buzzer sounds		
		Send E-mail to administrator automatically		
		SNMP sends trap alarm information		
11	Access	Web based: access via web browsers like IE, Firefox and Google		
		SNMP v1 support		
		Via console of serial communication		
12	User Management	User name and password configurable		
13	Environment	Temperature	0°C~ 45°C	

		Relative humidity	30~90%
		Storage	-20°C ~ 70°C

9 Compliance Information

9.1 EU Declaration of Conformity

The following declaration of conformity is covering A, B, C and D series altogether.

EU Declaration of Conformity

We

Dätwyler Cabling Solutions AG
Gotthardstrasse 31
6460 Altdorf
Switzerland

declare under our sole responsibility, that the following product

Product: iPDUs - intelligent socket strips

Serial number (s): See Annex I

is in conformity with the relevant Union harmonisation legislation:

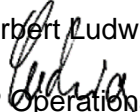
- 2014/35/EU Low Voltage Directive
- 2014/30/EU Electromagnetic Compatibility Directive
- 2011/65/EU Directive on the Restriction of the use of certain hazardous substances (RoHS)

Conformity is declared in relation to the following harmonised standards and/or technical specifications:

- 2014/35/EU LVD
 - EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013
- 2014/30/EU EMC
 - EN 55032:2012
 - EN 55024:2010
- 2011/65/EU RoH
 - EN 50581:2012

Signed on: 29.08.2019

Signed from:

Norbert Ludwig

VP Operational Excellence

Vangelis Kostas

Manager Quality Compliance

Annex I

#	Article number	Product name	Description
1	4110619	PDU121-0700A-EN	iPDU A series, 7x C13, input: 16A 1 phase
2	4110620	PDU121-1204A-EN	iPDU A series, 12x C13, 4x C19, input: 16A 1 phase
3	4110621	PDU131-1604A-EN	iPDU A series, 16x C13, 4x C19, input: 32A 1 phase
4	4110622	PDU141-1204A-EN	iPDU A series, 12x C13, 4x C19, input: 16A 3 phase
5	4110623	PDU131-1204B-EN	iPDU B series, 12x C13, 4x C19, input: 32A 1 phase
6	4110624	PDU131-1806B-EN	iPDU B series, 18x C13, 6x C19, input: 32A 1 phase
7	4110625	PDU151-1806B-EN	iPDU B series, 18x C13, 6x C19, input: 32A 3 phase
8	4110640	PDU121-1806B-EN	iPDU B series, 18x C13, 6x C19, input: 16A 1Phase
9	4110641	PDU141-1806B-EN	iPDU B series, 18x C13, 6x C19, input: 16A 3Phase
10	4110626	PDU131-1204C-EN	iPDU C series, 12x C13, 4x C19, input: 32A 1 phase
11	4110627	PDU131-1806C-EN	iPDU C series, 18x C13, 6x C19, input: 32A 1 phase
12	4110628	PDU151-1806C-EN	iPDU C series, 18x C13, 6x C19, input: 32A 3 phase
13	4110642	PDU121-1806C-EN	IPDU C series, 18x C13,6x C19, input: 16A 1Phase
14	4110643	PDU141-1806C-EN	IPDU C series, 18x C13, 6x C19, input: 16A 3Phase
15	4110629	PDU131-1204D-EN	iPDU D series, 12x C13, 4x C19, input: 32A 1 phase
16	4110630	PDU131-1806D-EN	iPDU D series, 18x C13, 6x C19, input: 32A 1 phase
17	4110631	PDU151-1806D-EN	iPDU D series, 18x C13, 6x C19, input: 32A 3 phase
18	4110644	PDU121-1806D-EN	IPDU D series, 18x C13, 6x C19, input: 16A 1Phase
19	4124600	PDU141-1806D-EN	IPDU D series, 18x C13, 6x C19, input: 16A 3Phase
20			

9.2 Information on Disposal for Users of electrical and electronic equipment (WEEE)



English

For private households:

The symbol of the crossed-out bin on the product(s) and / or accompanying documents means that used electrical and electronic equipment (WEEE) should not be mixed with general communal waste. For proper treatment, recovery and recycling, please take this product(s) to designated collection points where it will be accepted free of charge. You can obtain Information about available collection points from the communal authorities or from the manufacturer.

Alternatively, in some countries, you may be able to return your products to your local retailer upon purchase of an equivalent new product.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling.

Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.

For professional users in the European Union

If you wish to discard electrical and electronic equipment (EEE), please contact your dealer or supplier for further information.

For disposal in countries outside of the European Union

This symbol is only valid in the European Union (EU). If you wish to discard this product please contact your local authorities or dealer and ask for the correct method of disposal.

Deutsch

Informationen zur Entsorgung von Elektro- und Elektronik-Altgeräten

Für private Haushalte:

Das Symbol des durchgestrichenen Mülleimers auf den Produkten und / oder Begleitdokumenten bedeutet, dass gebrauchte Elektro- und Elektronikgeräte (WEEE) nicht mit dem

Hausmüll vermischt werden dürfen. Für die richtige Behandlung, Verwertung und Wiederverwertung bringen Sie bitte dieses Produkt zu bestimmten Sammelstellen, wo es kostenlos angenommen wird. Informationen zu verfügbaren Sammelstellen erhalten Sie bei den kommunalen Behörden oder beim Hersteller.

Alternativ können Sie in einigen Ländern Ihre Produkte beim Kauf eines gleichwertigen neuen Produkts an Ihren Händler vor Ort zurückgeben.

Durch die korrekte Entsorgung dieses Produkts können wertvolle Ressourcen eingespart und mögliche negative Auswirkungen auf die menschliche Gesundheit und die Umwelt verhindert werden, die durch die unsachgemäße Handhabung von Abfällen entstehen könnten.

Bitte wenden Sie sich an Ihre lokale Behörde, um weitere Informationen zu Ihrer nächstgelegenen benannten Sammelstelle zu erhalten.

Für die unsachgemäße Entsorgung dieser Abfälle können gemäß den nationalen Rechtsvorschriften Strafen verhängt werden.

Für professionelle Nutzer in der Europäischen Union

Wenn Sie elektrische und elektronische Geräte (EEE) entsorgen möchten, wenden Sie sich bitte an Ihren Händler oder Lieferanten für weitere Informationen.

Zur Entsorgung in Ländern außerhalb der Europäischen Union

Dieses Symbol ist nur in der Europäischen Union (EU) gültig. Wenn Sie dieses Produkt entsorgen möchten, wenden Sie sich bitte an Ihre örtlichen Behörden oder Ihren Händler und fragen Sie nach der richtigen Entsorgungsart.

Français

Information concernant l'élimination des équipements électriques et électroniques usages

Pour les ménages privés:

Le symbole de la poubelle barrée sur le (s) produit (s) et / ou les documents d'accompagnement signifie que les équipements électriques et électroniques usagés utilisés (DEEE) ne doivent pas être mélangés avec les déchets domestiques. Pour un traitement, une récupération et un recyclage appropriés, veuillez apporter ce produit aux points de collecte désignés où il sera repris gratuitement. Vous pouvez obtenir des informations sur les points de collecte disponibles auprès des autorités communales ou du fabricant.

Dans certains pays vous avez éventuellement la possibilité de pourriez peut-être retourner votre produits chez votre détaillant local lors de l'achat d'un nouveau produit équivalent.

Le traitement correct des déchets La mise au rebut correcte de ce produit contribuera à économiser de précieuses ressources et à prévenir tout effet négatif potentiel sur la santé humaine et l'environnement, qui pourrait résulter d'une manipulation inappropriée des déchets.

Veuillez contacter votre autorité locale pour plus de détails sur le point de collecte désigné le plus proche.

Conformément à votre législation nationale des sanctions peuvent être appliquées lors d'une applicables pour une élimination incorrecte de ces déchets, conformément à votre législation nationale.

Pour les utilisateurs professionnels de l'Union européenne:

Si vous souhaitez éliminer les des équipements électriques et électroniques (EEE), veuillez contacter votre revendeur ou fournisseur pour plus d'informations.

Pour l'élimination dans les pays hors de l'Union européenne:

Ce symbole n'est valable que dans l'Union européenne (UE). Si vous souhaitez jeter ce produit, veuillez contacter les autorités locales ou votre revendeur et demander la méthode correcte d'élimination.

Italiano

Informazioni sullo smaltimento per gli utenti di apparecchiature elettriche ed elettroniche

Per le famiglie private:

Il simbolo del cestino barrato sui prodotti e / o sui documenti di accompagnamento significa che le apparecchiature elettriche ed elettroniche (RAEE) usate non devono essere mescolate con

i rifiuti comuni generici. Per un corretto trattamento, recupero e riciclaggio, si prega di portare questo / i prodotto / i ai punti di raccolta designati dove sarà accettato gratuitamente. È possibile ottenere informazioni sui punti di raccolta disponibili presso le autorità comunali o dal produttore.

In alternativa, in alcuni paesi, potresti essere in grado di restituire i tuoi prodotti al tuo rivenditore locale al momento dell'acquisto di un nuovo prodotto equivalente.

Lo smaltimento corretto di questo prodotto consentirà di risparmiare risorse preziose e di prevenire potenziali effetti negativi sulla salute umana e sull'ambiente, che potrebbero altrimenti derivare da una gestione inadeguata dei rifiuti.

Per ulteriori dettagli sul punto di raccolta designato più vicino, contattare l'autorità locale.

Le penalità possono essere applicabili per lo smaltimento non corretto di questi rifiuti, in conformità con la propria legislazione nazionale.

Per utenti professionali nell'Unione europea

Se si desidera eliminare apparecchiature elettriche ed elettroniche (AEE), contattare il rivenditore o il fornitore per ulteriori informazioni.

Per lo smaltimento in paesi al di fuori dell'Unione Europea

Questo simbolo è valido solo nell'Unione Europea (UE). Se si desidera smaltire questo prodotto, contattare le autorità locali o il rivenditore e chiedere il metodo corretto di smaltimento.

Nederlands

Informatie over het weggooien van elektrische en elektronische apparatuur

Voor privéhuishoudens:

Het symbool van de doorgestreepte afvalbak op het product of op de bijbehorende documenten betekent dat gebruikte elektrische en elektronische apparatuur niet mag worden weggegooid met het algemeen afval. Voor een juiste behandeling, terugwinning en recycling, breng dit (deze) product(en) naar een aangewezen inzamelpunten waar het gratis wordt geaccepteerd. U kunt informatie over beschikbare inzamelpunten verkrijgen bij de gemeente of bij de fabrikant.

Als alternatief kunt u in sommige landen uw oude producten terug geven in uw plaatselijke winkel bij aankoop van een gelijkwaardig nieuw product.

Als u dit product op de juiste manier hergebruikt, bespaart u waardevolle grondstoffen en voorkomt u mogelijke negatieve effecten op de menselijke gezondheid en het milieu.

Neem contact op met uw gemeente voor meer informatie over het dichtstbijzijnde verzamelpunt.

Bij onjuiste verwerking van dergelijke defecte producten kunnen straffen van toepassing zijn, in overeenstemming met de nationale wetgeving.

Voor professionele gebruikers in de Europese Unie

Als u elektrische en elektronische apparatuur wilt weggooien, neemt u voor meer informatie contact op met uw dealer of leverancier.

Voor verwijdering in landen buiten de Europese Unie

Dit symbool is alleen geldig in de Europese Unie (EU). Als u dit product wilt weggooien, neemt u contact op met uw lokale overheid of dealer en vraagt u naar de juiste verwijderingsmethode.

Español

Información para usuarios sobre la correcta eliminación de aparatos eléctricos y componentes electrónicos

Para usuarios privados no profesionales:

El símbolo de la papelera tachada en el producto y documentos que lo acompañan, significa que los aparatos eléctricos y componentes electrónicos usados (RAEE) no deben mezclarse con los desechos comunes. Para un tratamiento, recuperación y reciclaje adecuados; lleve este producto a los puntos de recogida (puntos limpios) designados en su región o país. En donde serán aceptados sin cargo. Puede obtener más información sobre los puntos de recogida disponibles, de las autoridades competentes o del propio fabricante.

Alternativamente, en algunos países, es posible que pueda devolver sus productos a su minorista local con la compra de un nuevo producto equivalente.

La eliminación correcta de este producto, ayudará a ahorrar recursos de gran valor y evitará cualquier posible efecto negativo tanto para la salud humana como para el medio ambiente, que de otra forma podrían derivar del manejo inadecuado de los desechos.

Comuníquese con la autoridad competente para obtener más detalles sobre su punto de recogida (punto limpio) más cercano. Pueden aplicarse sanciones por la incorrecta eliminación de estos residuos, de conformidad con la legislación vigente de cada país.

Para usuarios profesionales en la Unión Europea:

Si desea desechar aparatos eléctricos y componentes electrónicos (EEE), póngase en contacto con su distribuidor o proveedor para obtener más información.

Para su eliminación en países fuera de la Unión Europea

Este símbolo solo es válido en la Unión Europea (UE). Si desea desechar este producto, póngase en contacto con las autoridades locales o el distribuidor y solicite el método correcto de eliminación, establecido en su país.

Português

Informação relativa à eliminação de resíduos de equipamentos elétricos e eletrónicos (REEE)

Para usuários domésticos:

O símbolo do caixote de lixo riscado (ou com uma cruz em cima) indicado no produto ou nos manuais, significa que o produto usado de acordo com a diretiva REEE não deve ser colocado no caixote de lixo para uso doméstico.

Estes produtos devem ser reciclados de acordo com a diretiva europeia nos pontos de recolha destinados a tal, onde o produto será aceite sem qualquer custo. As direções dos pontos de recolha desde tipo de lixo são disponibilizados pelas autarquias ou pelo fabricante.

Em alguns países também pode existir a opção de devolver o equipamento à empresa que o comercializa.

A reciclagem correta deste tipo de produtos contribui para a poupança de recursos valiosos e evita qualquer efeito negativo potencial na saúde humana e no meio ambiente.

Para mais informações sobre o ponto de reciclagem mais próximo contacte por favor as autoridades locais.

Podem ser aplicadas multas quando não se cumprirem as normas de reciclagem deste tipo de produtos.

Para utilizadores profissionais na União Europeia

Se pretender reciclar equipamento eléctrico ou eletrónico pode também contactar o seu fornecedor habitual.

Para eliminação em países fora da União Europeia

Este símbolo só é válido na União Europeia (EU). Se pretender reciclar este tipo de produto por favor contacte as autoridades locais ou o seu fornecedor relativamente ao método correto de reciclagem.

Ελληνικά

Πληροφορίες σχετικά με τη απόρριψη ηλεκτρικού και ηλεκτρονικού εξοπλισμού

Για οικιακούς χρήστες:

Το σύμβολο του διαγραμμένου κάδου απορριμμάτων που βρίσκεται στα προϊόντα ή / και τα συνοδευτικά έγγραφα σημαίνει ότι ο χρησιμοποιούμενος ηλεκτρικός και ηλεκτρονικός εξοπλισμός (ΑΗΗΕ) δεν πρέπει να αναμιγνύεται με τα κοινά απόβλητα. Για σωστή επεξεργασία, ανάκτηση και ανακύκλωση, παρακαλούμε να παραδώσετε αυτό το προϊόν (τα) στα καθορισμένα σημεία συλλογής όπου θα γίνουν δεκτά δωρεάν. Μπορείτε να λάβετε πληροφορίες σχετικά με τα διαθέσιμα σημεία συλλογής από τις τοπικές αρχές ή από τον κατασκευαστή. Εναλλακτικά, σε ορισμένες χώρες, ενδέχεται να μπορείτε να επιστρέψετε τα προϊόντα σας στον τοπικό σας λιανοπωλητή κατά την αγορά ενός ισοδύναμου νέου προϊόντος. Η σωστή διάθεση αυτού του προϊόντος θα βοηθήσει στην εξοικονόμηση πολύτιμων πόρων και θα αποτρέψει τυχόν αρνητικές επιπτώσεις στην ανθρώπινη υγεία και στο περιβάλλον, οι οποίες θα μπορούσαν να προκύψουν από

ακατάλληλο χειρισμό των αποβλήτων. Επικοινωνήστε με την τοπική αρχή για περισσότερες πληροφορίες σχετικά με το πλησιέστερο καθορισμένο σημείο συλλογής. Για την λανθασμένη διάθεση αυτών των αποβλήτων ισχύουν κυρώσεις σύμφωνα με την εθνική σας νομοθεσία.

Για επαγγελματίες χρήστες στην Ευρωπαϊκή Ένωση:

Εάν επιθυμείτε να απορρίψετε ηλεκτρικό και ηλεκτρονικό εξοπλισμό (ΗΗΕ), επικοινωνήστε με τον αντιπρόσωπο ή τον προμηθευτή σας για περισσότερες πληροφορίες.

Για διάθεση σε χώρες εκτός της Ευρωπαϊκής Ένωσης:

Αυτό το σύμβολο ισχύει μόνο για τις χώρες της Ευρωπαϊκής Ένωσης (ΕΕ). Αν θέλετε να απορρίψετε αυτό το προϊόν, επικοινωνήστε με τις τοπικές αρχές ή τον αντιπρόσωπό σας και ενημερωθείτε τη σωστή μέθοδο διάθεσης.